SITE NUMBER: B-L2-01
LOCAL NAME: Warner's Marsh
WRIA: 20.0173E

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Bogachiel **DATE:** 1/4/89 **OBSERVER:** Young

CHANNEL TYPE: Old main river channel now acting as a terrace trib.

TRIBUTARY TO: Bogachiel R. - 20.0162

SITE LOCATION: L.B. @ River mile - 4.6 (WDF)

LEGAL DESCRIPTION: NW1/4 S27 T28N R14W

	UPPER END	LOWER END	RIVER TEMP
WATER TEMP:	N/A	7.0 C	N/A
FLOW (CFS):	< 1.0	3 - 5	

SUBSTRATE TYPE: Silt and mud.

SITE SIZE:
Length- Main channel = 1800 m
Width- Surface = 6 - 12 ft (excluding pond)
Channel = 10 - 15 ft (excluding pond)
Depth- 1 to 3 ft. (excluding pond)

WATER SOURCE: Several small valley wall and terrace tributaries.

DIRECTIONS TO SITE: Head north from Forks on Hwy 101. Turn left just beyond m.p. 193 (1.0 mile north of Forks) onto the La Push Rd. Proceed west on the La Push Rd 5.0 miles then turn left onto the G-3000 Rd (ITT Rayonier). Follow the G-3000 approx. 0.6 miles until coming to a bridge which crosses the river. Continue 1.1 miles beyond the bridge then veer right onto a grade which leads down the hill. The marshy area at the bottom of the hill is the long, marshy pond of channel B-L2-01.

FISH ACCESS AND CURRENT USE: No fish were observed. Aside from one small beaver dam, however, fish appear to have unrestricted access to the lower 400 to 500 m of the channel. Mouth of channel has good attraction and holding area. Access to the large, marshy pond and upper reaches of B-L2-01 appears greatly restricted by large beaver dams.

FLOODING POTENTIAL: Low. Some backwater flooding is likely.

LANDOWNER: Kevin Warner owns adjacent land. Other owners possible.

COMMENTS & RECOMMENDATIONS: Site B-L2 is located between RM 4.5 and RM 6.5 (WDF). It is a large, flat area situated between the steep valley wall and the left bank of the Bogachiel River. The area seems to act as a catch basin for water running off the valley wall. A large portion of the B-L2 area is shallow marshland. A complex network of shallow and often poorly defined channels occurs throughout the B-L2 area (see channel map). Channel B-L2-01 is the predominant and most defined channel in area B-L2.

Channel B-L2-01 functions as the primary egress route for virtually all water in the B-L2 area. It appears that at some time in the past, B-L2-01 probably served as the main channel of the Bogachiel River. The river has since moved to the west and degraded considerably leaving B-L2-01 above the active flood plain. The marshy area in the mid and upper reaches of B-L2-01 is some 10 to 15 feet above current river levels.

The lower 400 to 500 m of B-L2-01 is a well-defined, incised channel with 6 to 10 foot banks. The habitat is that of a low to moderate gradient stream. The water appears very tanic and in places is rather deep (<

3 ft). The mouth of B-L2-01 looks quite good for attracting juvenile coho. Aside from one small beaver dam, no restrictions to upstream migration were seen in this reach.

The upper 1200 to 1300 m of B-L2-01 is a composed of a long, wide, marshy pond (see pond data supplement). Large beaver dams near the lower end of the pond would seem to greatly restrict, and may even prohibit, the upstream migration of juvenile coho.

Deeply ponded water in fairly narrow channels is seen in the vicinity of the beaver dams. Less than 5% of the marshy pond appears to be open water with most of the open water occuring in the lower 300 to 400 m of the pond. Several small, steep tributaries flowing off the valley wall enter from the left bank in this reach. A low gradient, tributary with a flow of 1 to 1.5 cfs also enters from the left bank about 400 m from the lower end of the pond. This trib drains another small shallow marsh area just east of B-L2-01.

The mid and upper reaches of the pond are very heavy in marsh grass and appear to have an average water depth of < 1 ft. A few narrow channels running through the marsh grass in the middle reaches of the pond may have water to a depth of 3 ft. A small side channel diverges from the right bank of B-L2-01 near the upper end of the marshy pond. Water in this side channel runs into a small and very shallow (ankle deep) marsh area just west of the B-L2-01. This water spreads out in the small marsh and has no defined channel until it reaches the southern end. The waters then converge into a single channel and rejoins B-L2-01 a short distance below the large marshy pond. This small side channel appears to offer very little habitat and probably only contains water when the main pond is at maximum water level.

Need to determine extent of current fish useage. Deepening and widening of channels in the marsh may be beneficial to the habitat. The nature of the marsh, however, may greatly limit habitat enhancement possibilities.

POND DATA SUPPLEMENT

DATE: 1/4/89 **OBSERVER:** Young

	INLET	OUTLET
WATER TEMPERATURE:	N/A	7.0 C

POND SIZE:

Length - 1250 - 1300 m (from aerial photos)
Width - Bank to bank width = 100 m (from aerial photos).
Actual water surface width is very difficult to determine.
Est. Maximum Depth - > 3ft (Water at this depth is only found in a relatively small area of the pond. Average water depth is probably < 1 ft.)

WATER SOURCE: Primarily small tributaries from off the valley wall. Also recieves water from a small terrace tributary which drains an adjacent shallow swamp. Small springs may also occur.

FISH ACCESS & CURRENT USE: No fish were observed in the pond area. Water is very tanic colored, however, and would greatly limit the chances of seeing fish. Large beaver dams near the lower end of this marshy pond appear to greatly restrict juvenile coho access.

TYPE & AMOUNT OF IN POND COVER: 95% of this pond is in marsh grass which appears to provide the primary cover. The color and depth of the water may also provide cover in the areas of open water.

COMMENTS & RECOMMENDATIONS: The pond appears to be in the middle to late stages of eutrophication. The mid and upper reaches of the pond are very shallow. With the heavy growth of marsh grasses, it seems only a matter of time before these reaches fill in completely. Deepening and widening of existing channels in the lower pond area may be feasible and beneficial.

NORTH COAST OFF CHANNEL SURVEY
SUBSEQUENT SITE EVALUATION FORM

River System: Bogachiel

Channel No.:B-L2-01
Site Name: Warner's Marsh
WRIA: 20.0173E

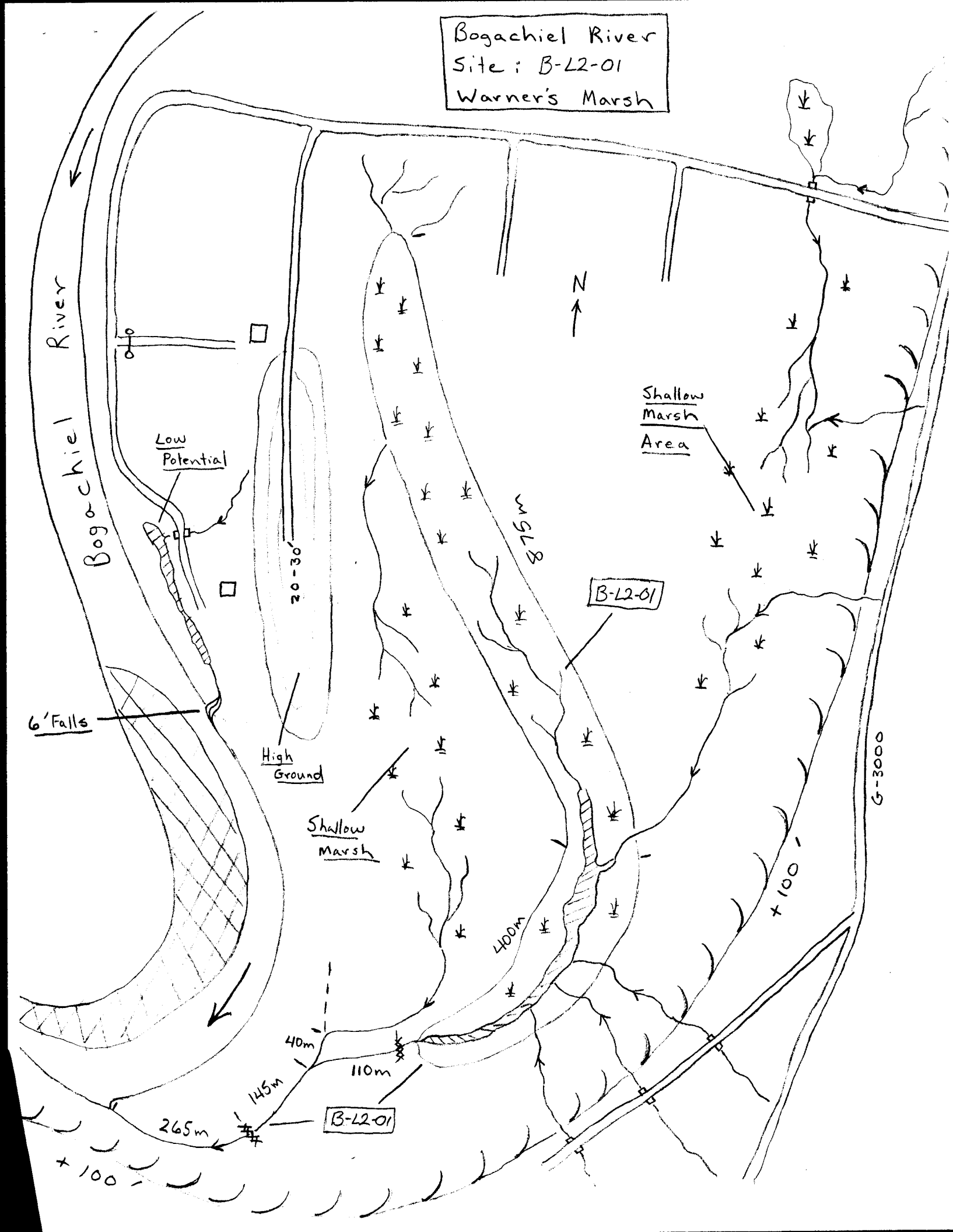
DATE: 5/10/89

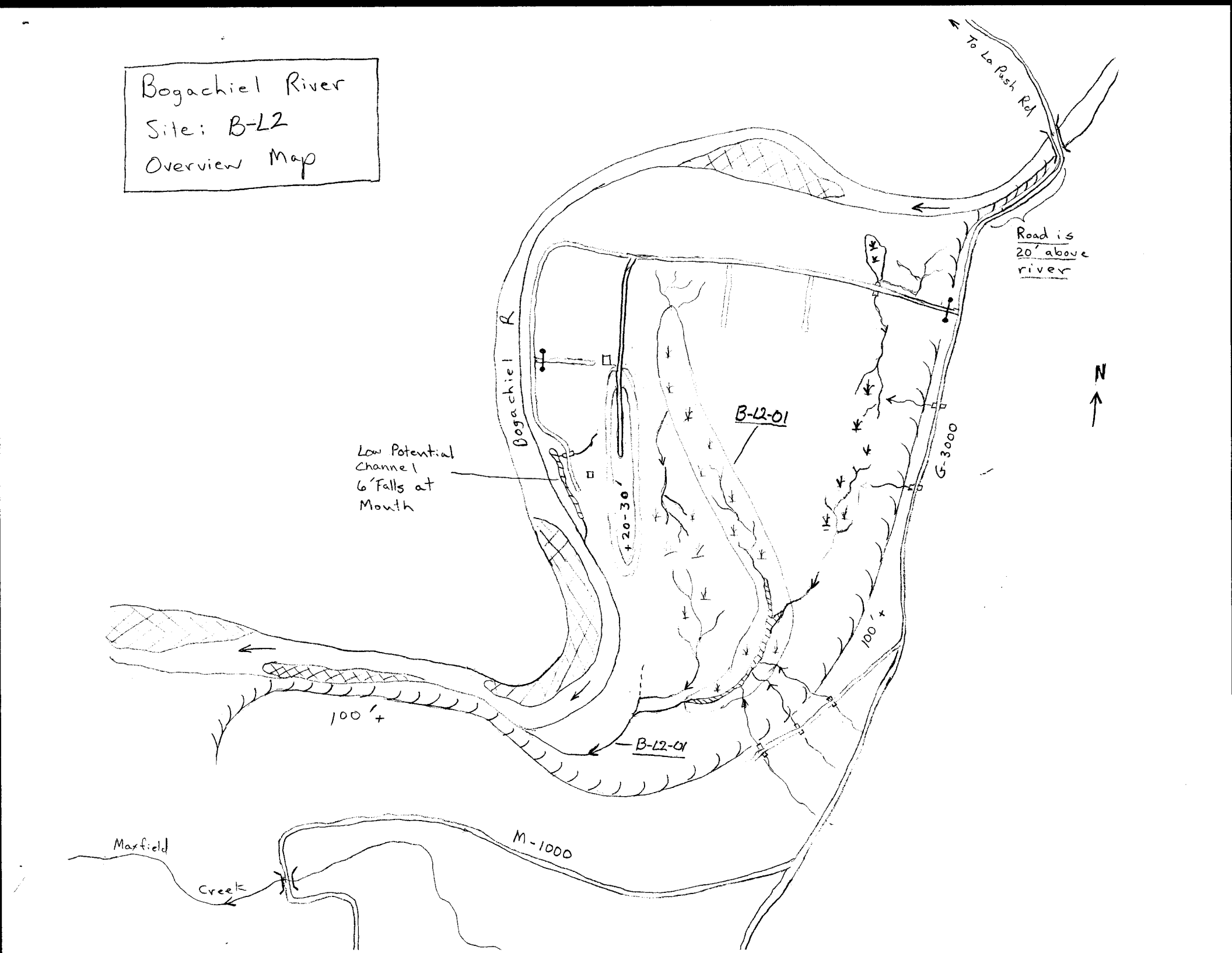
OBSERVER: Young

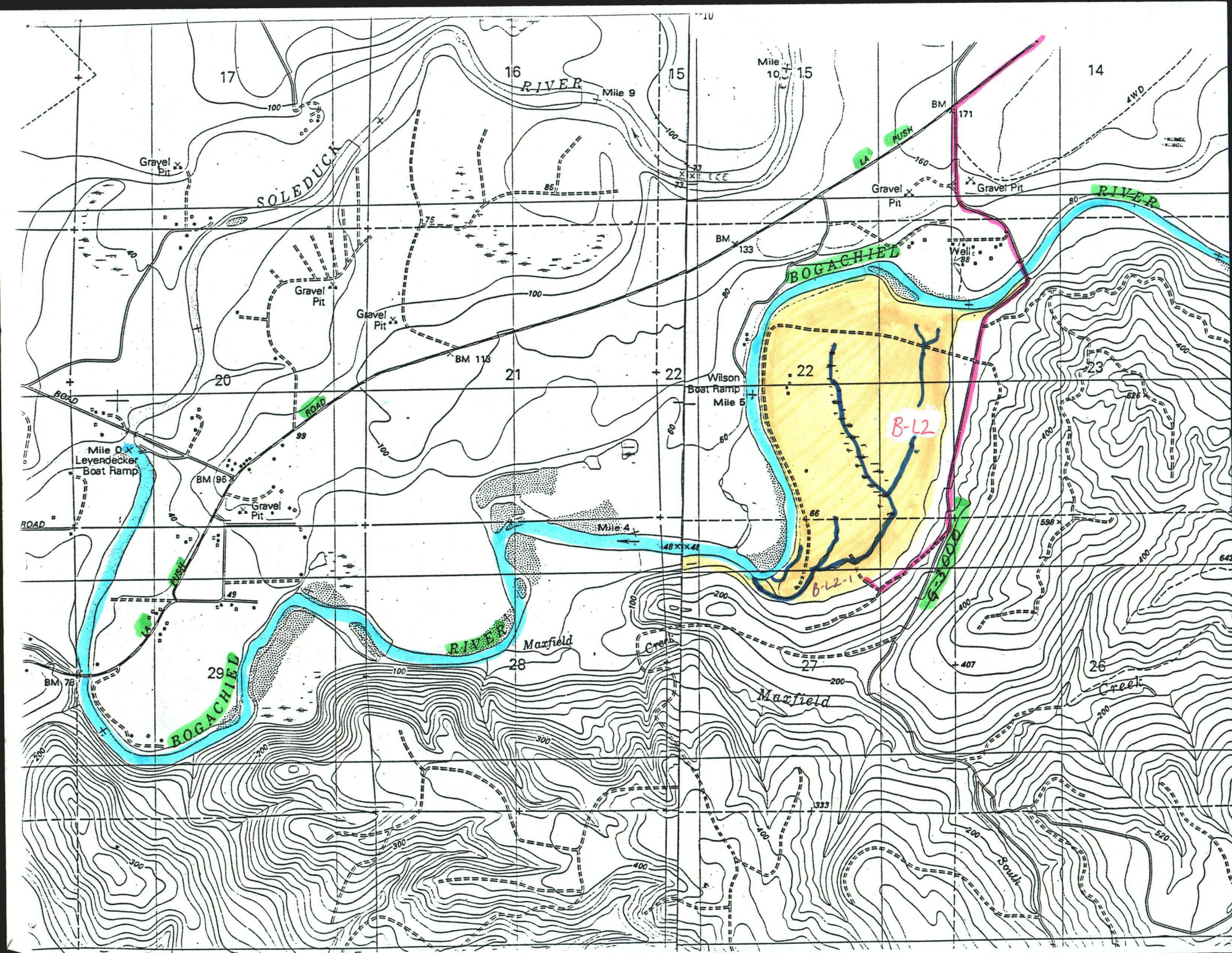
These observations were made during an extended dry period. There has been no significant rainfall since early April.

Flow at the lower end of the channel was estimated at 0.1 to 0.25 cfs. This seems more than sufficient flow to transport smolts. Water temperature in this reach was 56 F. The water is very tannic. A considerable amount of water running off of the hillside from numerous seeps into B-L2-01.

Water temperature at the outlet of one of the lower beaver ponds was 60 F. Flow through beaver dams appear to pose a problem for downstream migrants.


Bogachiel River
Site: B-L2-01
Warner's Marsh
Bogachiel River
N
Low Potential
20-30'
Shallow Marsh Area
875m
B-L2-01
6' Falls
High Ground
Shallow Marsh
G-3000
400m
x100'
40m
110m
145m
265m
B-L2-01
x100'


Bogachiel River
Site: B-L2
Overview Map
To La Push Rd
Road is 20' above river
N
Bogachiel R
B-L2-01
Low Potential Channel 6' Falls at Mouth
+20-30'
G-3000
100'+
100'+
B-L2-01
M-1000
Marfield
Creek


SOLEDUCK
RIVER
Mile 9
Mile 10
Gravel Pit
Gravel Pit
Gravel Pit
Gravel Pit
Gravel Pit
BM 171
BM 133
BM 113
BM 96
BM 78
Well
Wilson Boat Ramp
Mile 5
Mile 0
Leyendecker Boat Ramp
Mile 4
BOGACHIEL
RIVER
Maxfield
Creek
Maxfield
Creek
South
B-L2
B-L2-1
G-3000
PUSH
LA
PUSH
ROAD
ROAD
ROAD
4WD
17
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15
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